

## CLAIMS

What is claimed is:

1    1.    A method comprising:  
2        receiving, from a client computer, a point-to-point request message;  
3        converting the point-to-point request message to a subject-based message;  
4        multicasting the subject-based message;  
5        receiving a response to the subject-based message;  
6        converting the response to the subject-based message to a point-to-point response  
7        message; and  
8        transmitting the point-to-point response message back to the client computer.

1    2.    The method of claim 1, wherein the converting includes assigning a reply subject  
2        to the subject-based message.

1    3.    The method of claim 1, wherein the point-to-point request message is based on  
2        HyperText Transfer Protocol.

1    4.    The method of claim 1, wherein the subject-based message denotes a group of  
2        subscribers to receive the subject-based message.

1    5.    The method of claim 4, wherein the group of subscribers to receive the subject-  
2        based message can dynamically change.

1    6.    The method of claim 1, wherein the subject-based message is independent of an  
2        identity of a recipient.

1       7.     The method of claim 1, wherein the subject-based message is independent of a  
2     protocol used by a recipient of the subject-based message.

1       8.     A method for processing a point-to-point request based on HyperText Transfer  
2     Protocol (HTTP), the method comprising:

3              receiving, from a client computer, the point-to-point request;  
4              converting the point-to-point request to a subject-based message;  
5              multicasting the subject-based message to a number of application servers across  
6     a network;

7              receiving a response to the subject-based message from one of the number of  
8     application servers;

9              extracting content from the response;  
10          generating a point-to-point response using the content from the response; and  
11          sending the point-to-point response back to the client computer.

1       9.     The method of claim 8, wherein the converting includes assigning a reply subject  
2     to the subject-based message.

1       10.    The method of claim 8, wherein the subject-based message denotes a group of  
2     subscribers to receive the subject-based message.

1       11.    The method of claim 10, wherein the group of subscribers to receive the subject-  
2     based message can dynamically change.

1       12.    The method of claim 10, wherein the subject-based message is independent of an  
2     identity of a recipient.

1       13.     The method of claim 10, wherein the subject-based message is independent of a  
2     protocol used by a recipient of the subject-based message.

1       14.     A machine-readable medium that provides instructions, which when executed by  
2     a processor, cause said processor to perform operations comprising:  
3                 receiving, from a client computer, a point-to-point request message;  
4                 converting the point-to-point request message to a subject-based message;  
5                 multicasting the subject-based message;  
6                 receiving a response to the subject-based message;  
7                 converting the response to the subject-based message to a point-to-point response  
8     message; and  
9                 transmitting the point-to-point response message back to the client computer.

1       15.     The machine-readable medium of claim 14, wherein the converting includes  
2     assigning a reply subject to the subject-based message.

1       16.     The machine-readable medium of claim 14, wherein the point-to-point request  
2     message is based on HyperText Transfer Protocol.

1       17.     The machine-readable medium of claim 14, wherein the subject-based message  
2     denotes a group of subscribers to receive the subject-based message.

1       18.     The machine-readable medium of claim 17, wherein the group of subscribers to  
2     receive the subject-based message can dynamically change.

1       19.     The machine-readable medium of claim 14, wherein the subject-based message is  
2     independent of an identity of a recipient.

1       20.     The machine-readable medium of claim 14, wherein the subject-based message is  
2     independent of a protocol used by a recipient of the subject-based message.

1       21.     A machine-readable medium that provides instructions for processing a point-to-  
2     point request based on HyperText Transfer Protocol (HTTP, which when executed by a  
3     processor, cause said processor to perform operations comprising:

4                 receiving, from a client computer, the point-to-point request;

5                 converting the point-to-point request to a subject-based message;

6                 multicasting the subject-based message to a number of application servers across  
7     a network;

8                 receiving a response to the subject-based message from one of the number of

9     application servers;

10                extracting content from the response;

11                generating a point-to-point response using the content from the response; and

12                sending the point-to-point response back to the client computer.

1       22.     The machine-readable medium of claim 21, wherein the converting includes  
2     assigning a reply subject to the subject-based message.

1       23.     The machine-readable medium of claim 21, wherein the subject-based message  
2     denotes a group of subscribers to receive the subject-based message.

1    24.    The machine-readable medium of claim 23, wherein the group of subscribers to  
2    receive the subject-based message can dynamically change.

1    25.    The machine-readable medium of claim 21, wherein the subject-based message is  
2    independent of an identity of a recipient.

1    26.    The machine-readable medium of claim 21, wherein the subject-based message is  
2    independent of a protocol used by a recipient of the subject-based message.

1    27.    An application server coupled to a network, the application server comprising:  
2                 a database having data;  
3                 a processor coupled to the database, the processor to process subject-based  
4                 messages received from a server, the subject-based messages to include requests for  
5                 data content wherein the subject-based messages are generated from point-to-point  
6                 messages received from a client computer, the processing including:  
7                         listening for a subject-based request message being received from the  
8                 network;  
9                         extracting portions of the data in the database based on the request in the  
10                 subject-based message;  
11                         generating a subject-based response message that includes the portions of  
12                 the data extracted from the database; and  
13                         transmitting the subject-based response message back to the server.

1    28.    The application server of claim 27, wherein the point-to-point request message is  
2    based on HyperText Transfer Protocol.

1    29.    The application server of claim 27, wherein the subject-based response message  
2    includes a reply subject assigned by the server.

1    30.    The application server of claim 27, wherein the subject-based message is  
2    independent of an identity of a recipient.

1    31.    The application server of claim 27, wherein the subject-based message is  
2    independent of a protocol used by a recipient of the subject-based message.

1    32.    A system comprising:  
2                 a server coupled to a network, the server to receive a point-to-point request  
3                 message based on HyperText Transfer Protocol (HTTP) from a web browser and to  
4                 process the point-to-point request message, the processing of the point-to-point request  
5                 message including:  
6                         converting the point-to-point request message to a subject-based message;  
7                         multicasting the subject-based message;  
8                         receiving a response to the subject-based message;  
9                         converting the subject-based message to a point-to-point response  
10                 message; and  
11                         transmitting the point-to-point response message back to the web browser;  
12                 and  
13                 a number of application servers coupled to the network, each of the number of  
14                 application servers comprising:  
15                         a database having data;

16                   a processor coupled to the database, the processor to process the subject-  
17                 based message received from the server, the processing of the subject-based message  
18                 including:

19                   listening for a subject-based request message being received from  
20                 the network;

21                   extracting portions of the data in the database based on the request  
22                 in the subject-based message;

23                   generating a subject-based response message that includes the  
24                 portions of the data extracted from the database; and

25                   transmitting the subject-based response message back to the server.

1     33.    The system of claim 32, further comprising a distributed queue, the distributed  
2         queue to receive the subject-based message from the server, wherein one of the number  
3         of application servers schedules which of the application servers are to process the  
4         subject-based message received in the distributed queue.

1     34.    The system of claim 32, wherein the number of application servers can  
2         dynamically change.

1     35.    The system of claim 32, wherein the subject-based message is independent of a  
2         protocol used by the number of application servers.